

genus *Deontostoma* from *Thoracostoma* on the absence of "large dentiform projections in front." He characterized the genus *Thoracostoma* as having "a hollow ventral tooth." Although *Thoracostoma magnificum* does not have conspicuous teeth as seen in totemount preparations, yet in cross section a definite dorsal tooth, through which the dorsal esophageal gland duct opens, is found to be present. There are also dentiform projections in front. The genus *Deontostoma* has not been generally accepted.

A NOTE ON POSSIBLE "PIGMENT CELL"

NUCLEI OF THE OCELLI

Nothing has ever been observed on the innervation of the ocelli of nematodes. Schulz (1931) described a formative cell ("Bildungszelle") directly behind the ocellus of *Parasymphocostoma formosum* [? syn. of *Enchelidium marinum* (Müller, 1783) Ehrenberg, 1836]. He also described a canal ("Augenkanal") opening from the lens to the exterior. These observations have never been confirmed.

In *Thoracostoma magnificum* there are two large nuclei (11μ by 18μ) of the esophagus located a short distance behind the ocelli, which are half-embedded in the lateral walls of the esophagus (Fig. 1, A). These nuclei lie in accessory subventral gland ducts, which are filled with ocellus pigment granules, and lead to the eyes. They are the first two nuclei of the esophagus and

represent marginal nuclei (M_1 and M_2); they are surrounded by concentrations of ocellus pigment (Fig. 1, C). In *Leptosomatum elongatum* var. *acephalatum* Chitwood, 1936, and in *Thoracostoma figuratum* (Bastian, 1865) de Man, 1893, we have found these nuclei either in direct contact with the ocelli or a short distance behind them. Since the esophagus is a syncytium, the cytoplasmic boundaries of the cells producing the pigment have not been determined. However, since the regions in which the ocellus pigment extends throughout the esophagus are the same regions in which the marginal nuclei lie, it is suggested that the latter may function as the nuclei controlling pigment production. Possibly the two anteriormost marginal nuclei are specialized for activating the surrounding cytoplasm to produce the ocelli, while the others control the production of the diffuse pigment of the esophagus. However, nothing final can be stated at the present time about definite "pigment cell" nuclei which direct formation of the ocelli.

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ZOOLOGY.—A second record of the polychaetous annelid *Potamethus elongatus* (Treadwell). E. and C. BERKELEY, Pacific Biological Station, Nanaimo, British Columbia. (Communicated by F. A. Chace, Jr.)

The only specimen hitherto recorded of the polychaetous annelid *Potamethus elongatus* (Treadwell) is in the collection of the U. S. National Museum (no. 5221). It was taken by the steamer *Albatross* in the Hawaiian region in 1902 and briefly described by Treadwell (1906) under the name *Potamilla elongata*. The specimen was later re-examined by Hartman (1942) and attributed to the genus *Potamethus*. It was said to be fragmentary, but the essential details were described.

We have recently been fortunate enough to acquire three specimens of the species, sent to us by Dr. Clifford Carl, of the British Columbia Provincial Museum, Victoria, to whom they had been given by H. E. Wyeth,

of the cableship *Restorer*. They were found on sections of the San Francisco to Manila cable brought up for repair. The length of cable involved lies in depths varying from 840 to 1,600 fathoms, about 1,000 miles east of Guam. The specimens are all in good condition and complete, though much contracted, particularly in the peristomial region. One was preserved completely enclosed in its tube, the others partially enclosed. The lengths are, respectively, 50 mm, 51 mm, and 45 mm, the width about 2 mm in each case. The branchial plume, the filaments of which are twisted together in all the specimens, makes up half, or a little more, of the over-all length.

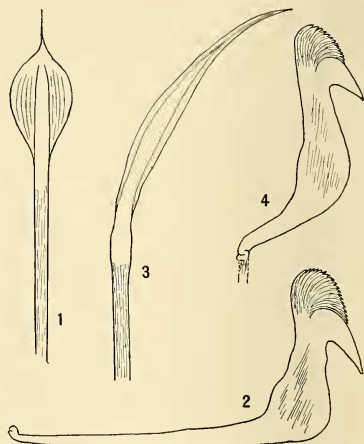
The general appearance agrees with that

of the type species of the genus, *P. spathiferus* Ehlers, the outstanding characters being the high, oblique collar, unbroken dorsally or ventrally, but rising to a high, thickened and grooved, lobe on the dorsal side, the slender body, and the very long branchial filaments (Ehlers, 1887, pl. 54). The dorsal collar lobe varies considerably in appearance in each of the three specimens and is evidently mobile. The long peristomial region, which Ehlers shows for *P. spathiferus* and Hartman says is present in *P. elongatus*, is not apparent in our specimens, but this region is much wrinkled because of contraction and would, no doubt, appear as shown by Ehlers in extension. The branchial bases are slightly, but definitely, involute on the ventral side.

As Hartman points out, *P. elongatus* is definitely differentiated from *P. spathiferus* by the form of the spatulate setae, those of the former species having long mucrons, whereas in the latter they are very little developed. The asymmetry of the blades of these setae in *P. elongatus*, which she stresses, is not invariably present in our specimens; some correspond closely with her figure 15d, others are as symmetrical as shown in our Fig. 1 and by Treadwell (fig. 74), and every intergrade is represented. The form of the thoracic uncini in our specimens is also not completely in accord with that shown by Hartman (fig. 1c) or by Treadwell (fig. 75). As we find them the stems curve very little or not at all and taper very slightly and gradually, the crests are somewhat higher, and the angle between the beak and neck is rather smaller (fig. 2). These differences may well be within the limits of variation.

The abdominal setae are of two kinds, long capillaries with very narrow blades and others much shorter with wide, flat terminal blades set at a slight angle to the shafts (fig. 3). The abdominal uncini are as shown in Fig. 4. The tubes are quite smooth, the walls very thin and fragile and coated with very fine mud.

Four species have been ascribed to the genus *Potamethus*, all from considerable depths. Of these *P. mucronatus* (Moore), *P. spathiferus* (Ehlers), and *P. elongatus* (Treadwell) seem to be sufficiently clearly differentiated (see Hartman, 1942). There



FIGS. 1-4.—*Potamethus elongatus* (Treadwell): 1, Spatulate thoracic seta; 2, thoracic uncinus; 3, short abdominal seta; 4, abdominal uncinus.

remains *P. scotiae* Pixell. The only notable difference between this species and *P. elongatus* (Treadwell) appears to be in the form of the thoracic uncini, particularly its very long stem and curious crest (Pixell, 1913, figs. 7a, 7b). Having regard to the variability of the setae in *P. elongatus* we have indicated, we consider it not improbable that the two species are synonymous.

One of the three specimens dealt with in this note is deposited in the U. S. National Museum (no. 22752); the others remain in the authors' collection.

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